

ing capacity suggests a loss of alveolar-capillary surface area (for example, emphysema). A normal diffusing capacity in the presence of airway obstruction suggests intrinsic airway disease. The specific type of airway disease may be defined by tantalum bronchography and pulmonary function tests in which airway resistance and maximal airflow rates are related to lung elastic recoil pressure. Finally, when all other pulmonary function tests are normal in an asymptomatic person, the "closing volume" may still be abnormally increased. This may indicate obstruction in the very smallest airways, less than 2 mm in diameter. If these different types of chronic obstructive pulmonary diseases can be detected early, preliminary studies suggest that therapeutic intervention may correct functional abnormalities; whether the disease itself is arrested or reversed remains to be seen.

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### Corticosteroids in the Treatment of Adult Respiratory Distress Syndromes

WHEN PATIENTS have experienced prolonged shock due to sepsis, hemorrhage, or following severe trauma, certain morphologic alterations in the lung are potential consequences. These may include intravascular platelet aggregation, sequestration of polymorphonuclear leukocytes with resultant release of lysosomal enzymes from these cells onto the pre-capillary arteriolar and capillary walls, and attenuation of pulmonary surfactant. These changes then lead to vascular constriction with leakage of plasma fluid into the pulmonary interstitial spaces. The end result of these well known changes is the development of functional alterations in pulmonary gas exchange characterized by progressively increasing hypoxemia and hypocapnea. Some of these same findings have also been described in pulmonary aspiration, smoke inhalation, and fat embolism.

The administration of high pharmacologic doses of corticosteroids has been suggested as desirable in preventing progression of the morphologic changes in the lung. They are thought to be particularly helpful in shock due to sepsis or hemorrhage, in smoke inhalations, or in aspiration pneu-

monia. Whether or not they are truly effective in adult respiratory distress syndromes of all types has not been conclusively established.

In order to be effective, the following dosage schedules have been recommended: Methylprednisolone 30 mg per kilogram of body weight or dexamethasone 6.0 mg per kilogram given either as a single bolus intravenous injection or repeated every eight hours for up to 72 hours.

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### Reversed Aorta to Saphenous Vein Grafts

WHEN THE CORONARY ARTERIES become occluded by atherosclerosis so that chest pain upon exertion, emotional reaction or after the ingestion of a large meal intervenes at regular intervals (stable angina) and does not respond to medical management, it is now an acceptable procedure to subject such patients to a series of studies including ventriculography and ciné coronary angiography. If they are found to be satisfactory candidates from all points of view, myocardial revascularization can be carried out by aorta-to-coronary vein grafting. Recent studies have indicated in-hospital mortalities of less than 7 percent throughout the country for single and double grafts and of 8 percent for triple grafts. Such experienced institutions as the Cleveland Clinic report a 1.2 percent mortality. Combinations with other revascularization procedures such as internal mammary-to-coronary anastomosis and internal mammary artery implantation have mortality rates similar to those of vein grafts alone, as does conventional coronary endarterectomies in certain selected cases.

Pre-infarction angina (Sampson's angina) is now also considered an indication for immediate myocardial revascularization. This differs from stable angina in that the chest pain lasts longer, has either not been present formerly or has changed in nature from its former pattern and is associated with transient changes in the T-wave